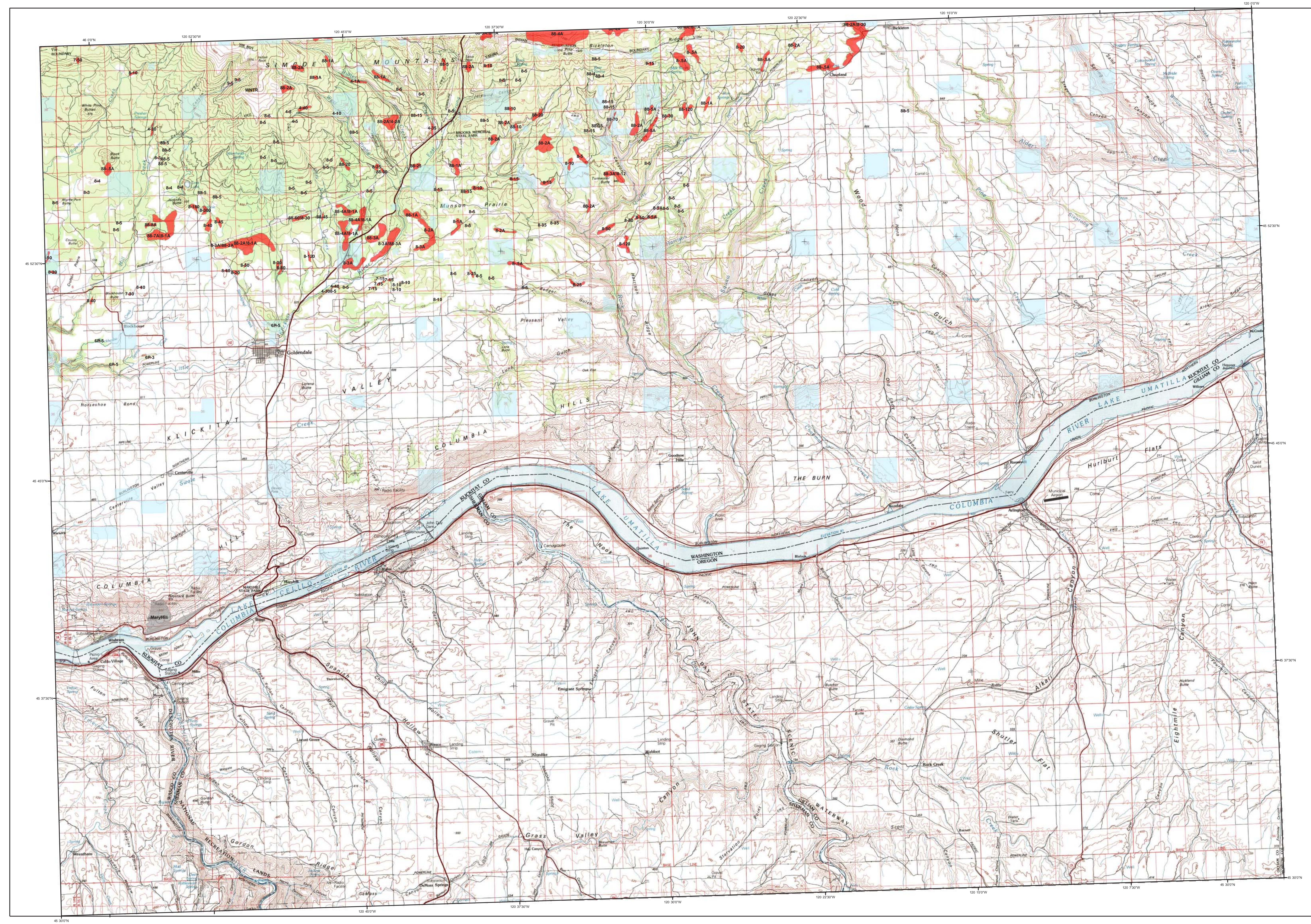


2006 Aerial Insect and Disease Survey

Goldendale - USGS 100K Quad A146120; 5G



Mortality Agents			
Imaging Agent	Primary Host	Code	Damaging Agent
ASpruce aphid	Stika spruce	1	Douglas-fir beetle
BBblackheaded budworm	Hemlock, spruce, true fir	2	Douglas-fir engraver
BMblackhead	White fir	3	Spruce beetle
BRgiant pine tortrix	Lodgepole, ponderosa pines	4	Fir engraver
BSpruce budworm	True fir, Douglas	5	Western balsam bark beetle
CHLarch	Ponderosa pine	6B	Mountain pine beetle
IFern hemlock looper	Western larch	6J	Mountain pine beetle
LLlarch looper	Western larch	6K	Mountain pine beetle
LLlarch looper	Western larch	6L	Mountain pine beetle
LLlarch looper	Western larch	6M	Mountain pine beetle
LLlarch looper	Western larch	6N	Mountain pine beetle
LLlarch looper	Western larch	6O	Mountain pine beetle
LLlarch looper	Western larch	6P	Mountain pine beetle
LLlarch looper	Western larch	6Q	Mountain pine beetle
LLlarch looper	Western larch	6R	Mountain pine beetle
LLlarch looper	Western larch	6S	Mountain pine beetle
LLlarch looper	Western larch	6T	Mountain pine beetle
LLlarch looper	Western larch	6U	Mountain pine beetle
LLlarch looper	Western larch	6V	Mountain pine beetle
LLlarch looper	Western larch	6W	Mountain pine beetle
LLlarch looper	Western larch	6X	Mountain pine beetle
LLlarch looper	Western larch	6Y	Mountain pine beetle
LLlarch looper	Western larch	6Z	Mountain pine beetle
LLlarch looper	Western larch	7	Mountain pine beetle
LLlarch looper	Western larch	8	Mountain pine beetle
LLlarch looper	Western larch	9	Mountain pine beetle
LLlarch looper	Western larch	10	Mountain pine beetle
LLlarch looper	Western larch	11	Mountain pine beetle
LLlarch looper	Western larch	12	Mountain pine beetle
LLlarch looper	Western larch	13	Mountain pine beetle
LLlarch looper	Western larch	14	Mountain pine beetle
LLlarch looper	Western larch	15	Mountain pine beetle
LLlarch looper	Western larch	16	Mountain pine beetle
LLlarch looper	Western larch	17	Mountain pine beetle
LLlarch looper	Western larch	18	Mountain pine beetle
LLlarch looper	Western larch	19	Mountain pine beetle
LLlarch looper	Western larch	20	Mountain pine beetle
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LLlarch looper	Western larch	65	Mountain pine beetle
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LLlarch looper	Western larch	68	Mountain pine beetle
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LLlarch looper	Western larch	70	Mountain pine beetle
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LLlarch looper	Western larch	76	Mountain pine beetle
LLlarch looper	Western larch	77	Mountain pine beetle
LLlarch looper	Western larch	78	Mountain pine beetle
LLlarch looper	Western larch	79	Mountain pine beetle
LLlarch looper	Western larch	80	Mountain pine beetle
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LLlarch looper	Western larch	82	Mountain pine beetle
LLlarch looper	Western larch	83	Mountain pine beetle
LLlarch looper	Western larch	84	Mountain pine beetle
LLlarch looper	Western larch	85	Mountain pine beetle
LLlarch looper	Western larch	86	Mountain pine beetle
LLlarch looper	Western larch	87	Mountain pine beetle
LLlarch looper	Western larch	88	Mountain pine beetle
LLlarch looper	Western larch	89	Mountain pine beetle
LLlarch looper	Western larch	90	Mountain pine beetle
LLlarch looper	Western larch	91	Mountain pine beetle
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LLlarch looper	Western larch	93	Mountain pine beetle
LLlarch looper	Western larch	94	Mountain pine beetle
LLlarch looper	Western larch	95	Mountain pine beetle
LLlarch looper	Western larch	96	Mountain pine beetle
LLlarch looper	Western larch	97	Mountain pine beetle
LLlarch looper	Western larch	98	Mountain pine beetle
LLlarch looper	Western larch	99	Mountain pine beetle
LLlarch looper	Western larch	100	Mountain pine beetle

USGS 100K Quad - Goldendale; A146120; 5G
2006 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: December 4, 2006

Legend

- Defoliating Agents
- Mortality Agents
- Other Damage
- WaDNR Managed Lands

Other Damaging Agents

Code	Damaging Agent	Primary Host
AB	Balsam woolly adelgid	True fir
AC	Coolley spruce gall adelgid	Spruce, Douglas-fir
AM	Blister rust	Maple
BR	Cystospora canker	Five-needle pine
CC	Dying hemlock	True fir
CH	Fire	Hemlock
GP	Gouy pitch midge	Douglas-fir
HA	Hardwood decline	Douglas-fir, ponderosa pine
NE	Arises rot	Silver fir, true fir
OUT	No damage detected	Conifer
PMD	Pacific madrone decline	Pacific madrone
PR	Leaf rust in poplars	Poplars
RD	Red ball	All species
SID	Slide	All species
UNKD	Unknown defoliation	All species
UNKM	Unknown mortality	All species
WATR	Water damage	All species
WIND	Wind-thrown	All species
WINTD	Winter Damage	All species

The map base was created with TOPOI (Copyright 2001, National Geographic); available online at: www.ngmapstore.com

A data dictionary, digital copies of this map and Argis insect and disease data are available at: www.fs.fed.us/r6/nr/r6id/data.shtml

How the Aerial Surveys Are Conducted

Data represented on this map are based on trees visibly affected by forest insects and diseases detected and recorded during aerial survey flights conducted by the USDA Forest Service, the Washington Department of Natural Resources and the Oregon Department of Forestry. Observers have just a few seconds to recognize the color difference between healthy and damaged trees of different species; diagnose causal agents correctly; estimate intensity; delineate the extent of damage; and precisely record this information on a georeferenced, digital map. Air turbulence, cloud shadows, distance from aircraft, haze, smoke and observer experience can all affect the quality of the survey. These data summaries provide an estimate of conditions on the ground and may differ from estimates derived by other methods.

The aerial survey provides information on the current status for many causal agents, and is important when examining insect activity trends by comparing historical and current survey data over large areas.

Overview surveys are a 'snap shot' in time and therefore may not be timed to accurately capture the true extent or severity of a particular disturbance activity. Specially designed surveys with modified flight patterns and timing may be conducted to more accurately delineate the extent and severity of a particular disturbance agent. Special surveys, such as Swiss needle cast surveys, are conducted when resources are available to address situations of sufficient economic, political or environmental importance.

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*****DISCLAIMER*****

The insect and disease data presented should only be used as an indicator of insect and disease activity, and should be ground-checked for precise location, extent, severity and causal agent.

Color coded polygons show locations where trees were recently killed or defoliated. Intensity of damage is variable and not all trees within coded polygons are dead or defoliated.

The cooperators reserve the right to correct, update, modify or replace GIS products without notice. Using this map for purposes other than those for which it was intended may yield inaccurate or misleading results.